

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 18

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PHILIP H. COOK, JR., MELANIA M. CRADDOCK,
WILLIAM A. FEEHLEY, NATHANAEL R. MIRANDA,
DREW V. SPEER and JEFFREY THOMAS

Appeal No. 2002-0420
Application No. 09/230,776

ON BRIEF

Before COHEN, McQUADE and BAHR, Administrative Patent Judges.

McQUADE, Administrative Patent Judge.

DECISION ON APPEAL

Philip H. Cook, Jr. et al. appeal from the final rejection of claims 26 through 38, all of the claims pending in the application.¹

THE INVENTION

¹ Claims 26 through 30, 32, 33 and 35 through 37 have been amended subsequent to final rejection.

The invention relates to "a system and method for triggering oxygen scavenging compositions for use in packaging oxygen sensitive articles" (specification, page 1).

Representative claims 26 and 32 read as follows:

26. A method comprising:

- a) providing an unwind roll, said roll adapted to hold a roll of oxygen scavenging film, the film comprising an oxidizable organic compound;
- b) providing an apparatus for triggering said film, the apparatus comprising at least one lamp adapted to emit pulses of UV light having a wavelength of between 200 and 400 nanometers;
- c) advancing the film from the unwind roll to the apparatus for triggering the film by means of a series of rollers that define a film path extending from the unwind roll to the apparatus for triggering the film;
- d) passing the film past at least one said lamp;
- e) exposing the film to pulses of UV light;
- f) advancing the triggered film from the apparatus for triggering to an apparatus for packaging articles; and
- g) applying said triggered film, in the apparatus for packaging articles, to make packages for containing said articles;

whereby said triggered film is continuously triggered and incorporated into said packages so as to provide oxygen scavenging packages.

32. An apparatus comprising:

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- a) an unwind roll, said roll adapted to hold a roll of oxygen scavenging film, the film comprising an oxidizable organic compound;
- b) an apparatus for triggering said film, the apparatus comprising at least one lamp adapted to emit pulses of UV light having a wavelength of between 200 and 400 nanometers;
- c) a series of rollers that define a film path extending from the unwind roll to the apparatus for triggering the film;
- d) an apparatus for packaging articles; and
- e) means for advancing triggered film from the apparatus for triggering to the apparatus for packaging articles.

THE PRIOR ART

The references relied on by the examiner to support the final rejection are:

Dunn et al. (Dunn)	5,034,235	July 23,
1991		
Speer et al. (Speer)	0,520,257	Dec. 30, 1992
European Patent Document		

THE REJECTION

Claims 26 through 38 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Speer in view of Dunn.

Attention is directed to the appellant's brief (Paper No. 15) and to the examiner's answer (Paper No. 17) for the

respective positions of the appellants and the examiner with regard to the merits of this rejection.²

DISCUSSION

Speer, the examiner's primary reference, discloses a method and means for initiating on demand an oxygen-scavenging material used to package oxygen-sensitive products, such as foods and beverages, by exposing the material to actinic radiation, "e.g. ultraviolet or visible light having a wavelength of about 200 to 750 nanometers (nm), and preferably having a wavelength of about 200 to 400 nm." (page 6, line 58, through page 7, line 1). Speer states that "exposure can be just prior to or during or after packaging" (page 7, line 12), and that Example 8 (see pages 11 and 12) "demonstrates that oxygen scavenging can be initiated in a shorter period of time by exposure to shorter UV wavelength irradiations" (page 11,

² In the final rejection (Paper No. 11), claims 26 through 38 also stood rejected under 35 U.S.C. § 112, first paragraph, and claims 27 and 33 stood rejected under 35 U.S.C. § 112, second paragraph. The examiner has since withdrawn these rejections (see the advisory action dated May 4, 2001, Paper No. 13) in light of the amendments made subsequent to final rejection (see n.1, supra).

lines 49 and 50). In one aspect of Example 8, "a roll of film was passed under the light [an ultraviolet unit using a medium pressure mercury arc lamp] (reel-to-reel) at a speed of 10 m/minute" (page 11, line 56).

In the examiner's view (see page 4 in the answer), Speer responds to all of the limitations in independent claims 26 and 32 except for those relating to the "pulses of UV light" and the "series of rollers that define a film path." The examiner relies on Dunn to overcome these deficiencies.

Dunn discloses methods and apparatuses which utilize short intensive pulses of incoherent, broad spectrum (polychromatic) light having a wavelength distribution such that at least about 70%, and preferably at least about 95%, of its electromagnetic energy is distributed in a wavelength range of from 170 nanometers to 2600 nanometers to inactivate microorganisms and/or enzymes on food products and packages (see column 4, lines 5 through 58). According to Dunn, "[a]pplication of pulses of high intensity, incoherent polychromatic light provides efficient, effective, high throughput processing and results in many practical and

economic advantages" (column 4, lines 11 through 15). Figure 4 illustrates an aseptic packaging apparatus 40 comprising, inter alia, two reels 402, 404 of packaging material, flashlamps 408, 416 for irradiating the material before it is used to package foodstuff, and a series of rollers (undenoted) for transporting the material along defined paths.

In proposing to combine Speer and Dunn to reject the appealed claims, the examiner concludes that it would have been obvious at the time the invention was made to a person having ordinary skill in the art

to substitute the high intensity pulsed light treatment as taught in Dunn et al. for the treatment in the Speer et al. operation to provide more complete and quicker triggering of the oxygen scavenging. Particularly, see the comment in Dunn et al. at col. 4, lines 11-19, that the application of pulses of high intensity, incoherent polychromatic light provides efficient, effective, high throughput processing and results in many practical and economic advantages [answer, pages 4 and 5].

As persuasively argued by the appellants, however, Dunn's use of incoherent, polychromatic light pulses to inactivate microorganisms and/or enzymes on food products and packages has no apparent relevance to the oxygen scavenging procedures disclosed by Speer. Furthermore, the combined teachings of

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these references provide no factual support for the examiner's determination that the artisan would have appreciated Dunn's pulse irradiation techniques as being capable of promoting a more complete and quicker triggering of Speer's oxygen scavenging initiation. The only suggestion for combining these references in the manner proposed by the examiner stems from an impermissible hindsight reconstruction of the appellants' invention wherein the claims have been utilized as a blueprint to selectively piece together disparate teachings in the prior art.

Accordingly, we shall not sustain the standing 35 U.S.C. § 103(a) rejection of independent claims 26 and 32, and dependent claims 27 through 31 and 33 through 38, as being unpatentable over Speer in view of Dunn.

SUMMARY

The decision of the examiner to reject claims 26 through 38 is reversed.

REVERSED

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IRWIN CHARLES COHEN)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
JOHN P. McQUADE)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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JENNIFER D. BAHR)	
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REVERSED

November 18, 2002